



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/989,480	12/12/97	BONCAN	V BJSC:232

J DEAN LECHTENBERGER
ARNOLD WHITE & DURKEE
PO BOX 4433
HOUSTON TX 77210

PM82/0714

EXAMINER

SUCHFIELD, G

ART UNIT	PAPER NUMBER
----------	--------------

3672

DATE MAILED:

07/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/989,480

Applicant(s)
Boncan et al

Examiner
George Suchfield

Group Art Unit
3672



☒ Responsive to communication(s) filed on 5/20/98; 5/17/99 and 5/28/99

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-37 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 33-35 is/are allowed.

☒ Claim(s) 1-7, 10-16, and 19-30 is/are rejected.

☒ Claim(s) 8, 9, 17, 18, 31, and 32 is/are objected to.

☒ Claims 1-37 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5,6,7

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 3672

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-35, drawn to a method of cementing a well, classified in class 166, subclass 292.
 - II. Claims 36 and 37, drawn to a cementing composition, classified in class 106, subclass 695.
 2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the cementing composition of the Group II invention could be used in cementing applications other than in a well environment, e.g., it could be used as a concrete in general building, sidewalk or highway construction. Further, it would appear applicable in dam, reservoir or sewer construction and/or repair.
 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
 4. During a telephone conversation with William Enders on July 9, 1999 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-35.
- Affirmation of this election must be made by applicant in replying to this Office action. Claims 36

Art Unit: 3672

and 37 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

Art Unit: 3672

The specification is objected to under 37 CFR 1.71 because it fails to provide an adequate written description of the invention insofar as the terms "BWOC" and "GPS" have not been defined.

Also, in page 6, line 27, note the recitation "into the into the".

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5,14,20,22 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are deemed indefinite in that the terms "BWOC" and "GPS" have not been defined.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

Art Unit: 3672

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-6, 11-15,25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger'413.

Messenger discloses a process for cementing a well penetrating a low-temperature formation such as in drilling and completing an arctic or an offshore well with a cementing slurry comprising a hydraulic cement, such as Portland cement, and an aluminum silicate such as bentonite or attapulgite, wherein the cementing slurry will develop sufficient compressive strength in such arctic or offshore well at temperatures as low as 40oC.

In view of the low temperature setting characteristics of the Messenger cementing slurry, to complete an offshore well located in a sea floor at a water depth greater than 1000 feet, as called for in claim 1, would have been an obvious matter of choice or design to one of ordinary skill in the art in carrying out the cementing process of Messenger, based, e.g., on economic feasibility or relative location/proximity of the offshore oil field to shore facilities.

Regarding the temperature range in claims 3 and 11 of "less than about 60oF", since the Messenger process effectively cements wells in environments or penetrated formations of 40oF, as noted above, it would have been an obvious matter of choice to apply the Messenger process to complete wells in environments of less than 60oF, as may be encountered in the particular arctic or offshore oil field under development and/or exploitation.

Art Unit: 3672

Regarding claim 4,13,25,26 since oil well cementing slurries are normally designed or formulated to prevent intrusion of formation fluids into the wellbore during the cementing process, it is deemed no such fluid intrusion will occur in carrying out the process of Messenger - and it obviously follows that the well(s) completed, i.e., cemented by the process of Messenger is completed for the overall purpose of producing oil and/or gas petroleum fluids.

Regarding claim 6,15 it is noted that Messenger (col. 1, lines 11-28) teaches that gypsum comprises a conventional oil well cementing slurry additive. Accordingly, it would have been obvious to one of ordinary skill in the art to similarly add gypsum to the exemplary cementing slurry in the process of Messenger in order to realize the beneficial effect(s) of such additive, such as reduced cement setting time.

The aluminum silicate concentration ranges of claims 5,14,29 are deemed encompassed or overlapped by Messenger.

11. Claim 7,10,16,19 rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger'413 as applied to claim 1 above, and further in view of Griffith'019.

Griffith discloses the addition of a foaming agent and foaming gas phase to a Portland cementing slurry used for cementing offshore wells, wherein such foaming agent and gas combination provides for a foamed cementing slurry possessing exemplary properties tailored to prevent both fracturing of the penetrated formations and fluid intrusion into the cementing slurry.

Accordingly, it would have been obvious to formulate the Portland cementing slurry of Messenger in the manner taught by Griffith, i.e., addition of foaming agent and foaming gas, in

Art Unit: 3672

order to enhance the prevention of fluid-intrusion and reduce the transition time of the cement after emplacement in the well. Note also that Griffith discloses his cement cementing slurry is compatible with other conventional cement slurry additives (col. 5, lines 1-5).

Regarding claim 10,19 in the process of Messenger, as above modified, the modified cementing slurry employed would have a set time of less than 30 minutes, as taught by Griffith (col. 2, lines 30-47).

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

It is noted that Messenger '825 discloses cementing a well with a cementing slurry will develop sufficient compressive strength at temperatures as low as 32oF (col. 7, lines 45-49) comprising a mixture of calcium aluminate cement and a bentonite or attapulgite aluminum silicate material. Thus, Messenger'825 is deemed cumulative to Messenger'413 as applied against one or more of the claims, as set forth above.

13. Claims 20-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

14. Claims 8,9,17,18,31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 33-35 are allowed.

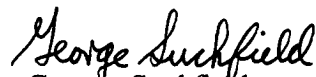
Art Unit: 3672

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is (703) 308-2152.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell, can be reached on (703) 308-2151. The fax phone number for this Group is (703) 305-3597, (703) 305-7687 or (703) 306-4195.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-2168.

gs/Suchfield
July 13, 1999


George Suchfield
Primary Examiner
Art Unit.3672